

CLAIMS

1. An apparatus for use in humidified gases delivery treatment comprising:
a housing,
a pressurised gases supply within said housing,
a pressurised gases outlet in said housing in fluid connection with said pressurised gases supply and adapted to make fluid connection with an inlet of a humidifier in order to provide gases flow to a said humidifier, and
filter means on or over said inlet of said humidifier to filter said gases entering said humidifier.
2. An apparatus according to claim 1 further comprising a humidified gases return in said housing, adapted to make fluid connection with an outlet of a said humidifier in order to receive humidified gases from said humidifier, and
a patient outlet in said housing, in fluid connection with said humidified gases return in order to receive humidified gases from said humidified gases return and provide humidified gases to said patient outlet, said patient outlet being in fluid connection with or adapted to make fluid connection with a breathing conduit for delivery of humidified gases to a patient.
3. An apparatus according to claim 1 or 2 wherein said humidifier is a heatable water chamber, and said apparatus includes, a chamber heating means connected to said housing and said housing includes a humidifier engagement locating a said humidifier adjacent said chamber heating means, said chamber heating means adapted to vaporise liquid water in said water chamber in order to provide water vapour to said gases flow passing through said water chamber.
4. An apparatus according to claim 3 wherein said humidification chamber has a base and said chamber is engagable with said humidifier engagement via a single motion, and said single motion of engagement urges the base of said humidification chamber adjacent and in contact with said chamber heating means and makes a first fluid connection between said pressurised gases outlet and said humidifier inlet, and makes a second fluid connection between said humidified gases return and said humidifier outlet, with said first and second fluid connections being made in the direction of said single motion.
5. An apparatus according to any one of claims 2 to 4 wherein said patient outlet includes a connector for receiving a breathing hose and at least one auxiliary electrical connection plug or socket or pneumatic connection plug or port, for a simultaneous connection when connecting a breathing circuit having complementary electrical and pneumatic connectors.

6. A humidifier chamber for use with a gases humidification apparatus comprising:
 - a container, with a surrounding wall and top, and an open bottom,
 - a heat conductive base enclosing said open bottom of said container,
 - a gases inlet to said container,
 - a gases outlet to said container, and
 - filter means on or over said inlet to said container to filter said gases to said container.
7. A humidifier chamber according to claim 6 further comprising a first elongate flow tube extending into said humidifier container from the inner periphery of said gases inlet and,
 - a second elongate flow tube extending into said humidifier container from the inner periphery of said gases outlet,
 - said first and said second flow tubes being substantially parallel to each other, and substantially parallel to said base of said chamber, and
 - said gases inlet and said gases outlet facing the same direction, a preferred insertion direction, and
 - said preferred insertion direction is substantially parallel to the said base of said chamber, such that
 - said humidifier chamber may make operable engagement with a heater base in a single motion,
 - and fluid connections with said gases outlet and said gases inlet, being also made in said single motion.
8. A humidifier chamber according to claims 6 or 7 wherein said filter means includes a framework substantially supporting a filter material, said framework being shaped to fit the internal shape of said inlet, and including means to lock said filter means in place in said inlet.
9. A humidifier chamber according to claim 8 wherein said filter material is interposed between the structural members of said framework.
10. A humidifier chamber according to claims 8 or 9 wherein said means to lock is a friction fit between said filter means and said inlet.
11. A humidifier chamber according to any one of claims 7 or 10 wherein said second flow tube includes an air bleed orifice, said air bleed orifice being located in the top of said second elongate flow tube, and located toward the end of the elongate flow tube adjacent said gases outlet.
12. A humidifier chamber according to claims 6 or 11 wherein said gases inlet and said gases

outlet of said humidifier chamber are each a female port, and

said humidifier chamber is generally cylindrical, and said female ports open out to the cylindrical surface adjacent the top of the cylindrical wall.

13. An apparatus for use in humidified gases delivery treatment as herein described with reference to the accompanying figures.

14. A humidifier chamber as herein described with reference to the accompanying figures.